

REMARKS

In response to the above-identified Final Office Action ("Action"), Applicants traverse the Examiner's rejection to the claims and seek reconsideration thereof. Claims 1-12 are pending in the present application. Claims 1-6 and 8-11 are withdrawn. Claims 7 and 12 are rejected. In this response, claim 7 is amended, claim 12 is cancelled and claim 13 is added.

I. Claim Amendments

Applicants respectfully submit herewith amendments to claim 7 and add new claim 13.

Claim 7 is amended to clarify that the method of detection includes "culturing a sample comprising bacteria in a medium under anaerobic conditions, the medium comprising: an oxidizing metal complex capable of oxidative polymerization of an indoxyl chemical derivative and a substrate selected from the group consisting of X-Gal, X-Phos, X-GlcNac, Mag-Gal, Mag- α -Gal, and Mag-Phos to result in an insoluble colored compound; and detecting a bacteria based on an appearance of a color in the medium associated with the bacteria while the cultured sample remains in the anaerobic conditions." Applicants respectfully submit claim 7 is amended to clarify that the method includes culturing a sample comprising bacteria in the claimed medium under anaerobic conditions and detecting the bacteria while the cultured sample remains in the anaerobic conditions. In addition, claim 7 is amended to recite "X-GlcNac" instead of "X-acglmn," which was incorrectly recited in the claim. Applicants respectfully submit, as is evidenced by the amendments made in the parent application assigned Application No. 09/890,841, upon recognition of this error Applicants sought to amend the specification and claims to correct the error.

Claim 13 is added to clarify that the oxidizing metal complex is ammoniacal iron citrate. Support for the amendment to claim 13 may be found, for example, in original claim 9.

Applicants respectfully submit, in view of the foregoing, the amendments to claim 7 and new claim 13 are supported by the specification and do not add new matter. For at least the

foregoing reasons, Applicants respectfully request consideration and entry of the amendments to claim 7 and new claim 13.

II. Specification Amendments

Applicants respectfully submit herewith amendments to the specification. In particular, the specification is amended to correct the recitation of “X-acglmn” to recite “X-GlcNac” for consistency with claim 7. For the reasons previously noted in regard to claim 7, the amendments are supported by the specification and do not add new matter. Applicants respectfully request consideration and entry of the amendments to the specification.

III. Terminology

In the outstanding Action the Examiner requests that Applicants clarify the terminology X-Gal, X-Phos, X-acglmn, Mag-Gal, Mag- α -Gal, and Mag-Phos recited in claim 7. As previously noted, the term “X-acglmn” has been replaced with “X-GlcNac.” Accordingly, the full chemical names for X-Gal, X-Phos, X-GlcNac, Mag-Gal, Mag- α -Gal, and Mag-Phos are as follows:

Term	Corrected Term	Full Chemical Name
X-Gal		5-bromo-4-chloro-3-indolyl-beta-D-galactoside
X-Phos		5-bromo-4-chloro-3-indolyl-phosphate
X-acglmn	X-GlcNac	5-bromo-4-chloro-indolyl-N-acetyl-beta-D-glucosaminide
Mag-Gal		5-bromo-6-chloro-3-indolyl-beta-D-galactopyranoside
Mag- α -Gal	Corresponds to MAGENTA-Gal	5-bromo-6-chloro-3-indolyl- α -D-galactopyranoside
Mag-Phos		5-bromo-6-chloro-3-indolyl-phosphate

As noted by the Examiner, X-gal is defined on page 3, lines 7-8 of the application. Applicants further submit herewith documentation showing the claim terms and their corresponding full chemical names for the Examiner’s convenience.

IV. Claim Rejections – 35 U.S.C. §112

A. First Paragraph

In the outstanding Action, the Examiner rejects claims 7 and 12 under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a

way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 12 is deleted therefore the rejection of claim 12 on this basis is moot.

In regard to claim 7, claim 7 is amended to correct the recitation of “deleting” and clarify that the media includes an oxidizing metal complex capable of oxidative polymerization of an indoxyl chemical derivative. With respect to the Examiner’s determination that the specification does not support Applicants’ recitation of “indoxyl chemical derivative,” Applicants respectfully direct the Examiner’s attention to page 1, lines 5-10, page 1, lines 10-20, page 4, lines 20-35, page 7, of the specification wherein indoxyl derivatives are referenced numerous times and specific examples of substrates containing Applicants’ claimed “indoxyl chemical derivatives” are listed.

Applicants believe for at least the foregoing reasons, claim 7 is in compliance with 35 U.S.C. §112, first paragraph. Applicants respectfully request reconsideration and withdrawal of the rejection of claim 7 on this basis.

B. Second Paragraph

In the outstanding Action, the Examiner rejects claims 7 and 12 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12 is deleted therefore the rejection of claim 12 on this basis is moot.

In regard to claim 7, as previously discussed, claim 7 is amended to correct the recitation of “deleting” and clarify that the media includes an oxidizing metal complex capable of oxidative polymerization of an indoxyl chemical derivative. In addition, claim 7 is amended to clarify that detecting includes detecting a bacteria based on an appearance of a color in the medium associated with the bacteria while the cultured sample remains in the anaerobic conditions.

Applicants believe the foregoing amendments to claim 7 are responsive to the rejections raised by the Examiner and place the claims in compliance with 35 U.S.C. §112, second

paragraph. Applicants respectfully request reconsideration and withdrawal of the rejection of claim 7 on this basis.

V. Claims Rejected Under 35 U.S.C. §103

In the outstanding Action, the Examiner rejects claims 7 and 12 under 35 U.S.C. 103(a) as being unpatentable over *Differential fliu-lacZ fusion regulation linked to Escherichia coli colony development* by Newman et al. ("Newman") taken with *Characterization of a Novel Member of the DesS-DegU Regulon Affected by Salt Stress in Bacillus subtilis* by Dartois et al. ("Dartois") and *X-α-Gal-based medium for simultaneous enumeration of bifidobacteria and lactic acid bacteria in milk* by Chevalier et al. ("Chevalier"). Applicants respectfully traverse the rejection.

To establish a *prima facie* case of obviousness, the Examiner must show the cited references, combined, teach or suggest or provide an apparent reason for each of the elements of the rejected claim.

Claim 12 is cancelled therefore the rejection of claim 12 on this basis is moot.

In regard to claim 7, Applicants respectfully submit Newman, Dartois and Chevalier fail to teach or suggest or provide any apparent reason for at least the elements of "a) culturing a sample comprising bacteria in a medium ***under anaerobic conditions***, the medium comprising: an oxidizing metal complex capable of oxidative polymerization of an indoxyl chemical derivative and a substrate selected from the group consisting of X-Gal, X-Phos, X-GlcNac, Mag-Gal, Mag-α-Gal, and Mag-Phos to result in an insoluble colored compound; and b) detecting a bacteria based on an appearance of a color in the medium associated with the bacteria ***while the cultured sample remains in the anaerobic conditions***" (emphasis added) as recited in amended claim 7.

The Examiner alleges that Newman and Dartois disclose each of the elements of claim 7 except for a method of detecting under anaerobic conditions. The Examiner instead alleges Chevalier discloses a method of detecting bacteria grown anaerobically. In view of these teachings, the Examiner alleges one of ordinary skill in the art would have had a reasonable

expectation of success in detecting anaerobic bacteria by modifying Newman to use ferric ammonium citrate (ammoniacal iron citrate) as suggested by Dartois using anaerobicity as taught by Chevalier for more effective and efficient detection of anaerobic pathogens.

Applicants respectfully disagree and submit that even if it were possible to combine the references, and Applicants do not believe this is the case, the combination would still fail to provide a method of detecting bacteria while the cultured sample remains in the anaerobic conditions as recited in claim 7.

In particular, ferric ammonium is a soluble form of ferric (+3) iron. It is added to bacteriologic media for only three reasons, namely, (1) an iron source in cases of siderophilic bacteria such as *M. tb*; (2) to detect H₂S production in situ (forms a black precipitate of Fe₂S₃) or (3) in the esculin hydrolysis test for *Strep viridans* (forms a black precipitate with hydrolyzed esculin). In all of these uses, the medium is incubated under *aerobic* conditions. In particular, the color reaction when using chromogens containing indoyl moiety absolutely require oxygen to get the precipitate color. The reaction will not work in the absence of oxygen or an oxidizing agent. Moreover, under anaerobic conditions one would need to replace oxygen to oxidize the indoyl groups to get a precipitate color. Although ferric iron (Fe⁺³) may be used for this purpose, *it has to be soluble in the medium*.

As recognized by the Examiner, Dartois and Newman disclose aerobic culturing. Moreover, Dartois uses a concentration of ferric ammonium citrate that is roughly 1/10 of that used in the instant application. Newman uses ferrous (not ferric) in its formulation and about 1/10 of that used in the instant application. Ferrous iron cannot replace oxygen in the indoyl color generation reaction. Moreover, in view of the fact that both Dartois and Newman teach *aerobic* culturing, there would be no reason to modify Newman to include ferric iron as alleged by the Examiner. Accordingly, Applicants do not believe one of ordinary skill in the art would understand any reason to modify Newman in view of Dartois as alleged by the Examiner to achieve a precipitate color under anaerobic conditions. Finally, although Chevalier discloses anaerobic conditions, the plate is transferred to an oxygen environment to achieve the indoyl color generation. Accordingly, even if it were possible to combine Dartois, Newman and Chevalier, the references fail to teach or suggest or provide any apparent reason for a method of

detecting bacteria while the cultured sample remains in the anaerobic conditions as recited in claim 7.

Thus, for at least the foregoing reasons, the combination of Dartois, Newman and Chevalier may not be relied upon to teach or suggest or provide any apparent reason for each and every element of claim 7. Since each of the elements of claim 7 are not provided by the cited art, a *prima facie* case of obviousness may not be established. Applicants respectfully request reconsideration and withdrawal of the rejection of claim 7 under 35 U.S.C. §103.

In regard to new claim 13, claim 13 depends from claim 7 and incorporates the limitations thereof. Thus, for at least the reasons that claim 7 is not *prima facie* obvious over Dartois, Newman and Chevlier, claim 13 is further not obvious over the cited art. For at least the foregoing reasons, Applicants respectfully requests consideration and allowance of claim 13.

CONCLUSION

In view of the foregoing, it is believed that all claims now pending, namely claims 1-11 and 13, are now in condition for allowance and such action is earnestly solicited at the earliest possible date. If there are any additional fees due in connection with the filing of this response, please charge those fees to our Deposit Account No. 02-2666. Questions regarding this matter should be directed to the undersigned at (310) 207-3800.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR, & ZAFMAN LLP

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Chemicals » Alphabetical Listing of Chemicals » X » X-Phos AMPD Salt



Chemicals

Chemicals

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Ca - Cz	Pa - Pz
Da - Dz	Qa - Qz
Ea - Ez	Ra - Rz
Fa - Fz	Sa - Sz
Ga - Gz	Ta - Tz
Ha - Hz	Ua - Uz
Ia - Iz	Va - Vz
Ja - Jz	Wa - Wz
Ka - Kz	Xa - Xz
La - Lz	Ya - Yz
Ma - Mz	Za - Zz

X-Phos AMPD Salt

5-Bromo-4-chloro-3-indolyl Phosphate, Di(2-amino-2-methyl-1,3-propanediol) Salt

$C_{16}H_{28}BrClN_3O_8P$ F.W. 536.74 CAS 107475-11-6

Ratings

Health: 1

Flammability: 0

Reactivity: 0

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Brom

Alphabetical List of Products

B 3756 [C-25]	8-Bromoadenosine 5'-triphosphate sodium salt	5 mg 22 00
	8-Br-ATP (81025-56-5) $C_{10}H_{15}N_4O_{13}P_3Br$ FW 586 1	25 mg 63 10
	approx. 95% P_{2u} Purinoceptor agonist similar in reactivity to ATP 8-Bromo form of Adenosine 5'-triphosphate Ref: 1. Picher, M. et al. <i>Biochem Pharmacol</i> 51, 1453 (1996) 2. Murata, S. et al. <i>Eur J Biochem</i> 256, 229 (1998) R 232/245-36/37/38 S 53-22-26-36-45	
B 9392 [B]	16 β -Bromoandrosterone	5 mg 217 60
	17-one (115115-49-6) $C_{19}H_{27}BrO_2$ FW 369 3	
B 2395 [B]	4-Bromoaniline p-Bromianiline (106-40-1) C_6H_6BrN FW 172 0	10 g 29 30
	R 21/22-36/37/38 S 53-26-45-37/39	50 g 98 30
	approx. 98%, Crystalline	100 g 171 90
	Color white to light yellow	
10,090-0 [B]	Powder, Practical Grade May produce turbid solutions.	5 g 7 93
	Color tan	100 g 41 31
		500 g 159 16
B-135 [C-25]	R(+)-6-Bromo-APB hydrobromide R(+)-6-Bromo-7,8-dihydroxy-3-allyl-1-phenyl-2,3,4,5-tetrahydro-1H-3-benzazepine $C_{19}H_{20}BrN_2$ HBr FW 455 2	25 mg 273 65
	Solid D_1 Dopamine receptor agonist; more potent enantiomer. Photosensitive Color off-white Solubility ethanol soluble Ref: Neumeyer, et al. Stereoselective probes for the D_1 dopamine receptor. Synthesis and characterization of R(+)- and S(-) enantiomers of 3-allyl-7,8-dihydroxy-1-phenyl-2,3,4,5-tetrahydro-1H-3-benzazepine and its 6-bromo analogue. <i>J. Med. Chem.</i> 35, 1466 (1992)	100 mg 812 10
B-136 [C-25]	S(-)-6-Bromo-APB hydrobromide $C_{19}H_{20}BrN_2$ HBr FW 455 2	5 mg 72 26
	Solid Weak D_1 dopamine receptor agonist; less potent enantiomer. Photosensitive Color off-white Solubility ethanol soluble Ref: Neumeyer, et al. Stereoselective probes for the D_1 dopamine receptor. Synthesis and characterization of R(+)- and S(-) enantiomers of 3-allyl-7,8-dihydroxy-1-phenyl-2,3,4,5-tetrahydro-1H-3-benzazepine and its 6-bromo analogue. <i>J. Med. Chem.</i> 35, 1466 (1992)	
B5,720-6 [C-25]	3-Bromobenzaldehyde C_7H_5BrO FW 105 1	25 g 17 84
	R 36/37/38 S 26-36	100 g 53 66
B5,770-2 [B]	Bromobenzene Density 1.49 g/ml R 10-18-51/53 S 53-61	100 mL 8 08
		250 mL 26 68
		2 L 86 90
		2.5 L 88 42
10,866-9 [B]	4-Bromobenzenesulfonyl chloride R 34 S 53-26-45-36/37/39	25 g 39 94
		100 g 129 43
	(o-Bromobenzyl)ethyldimethylammonium p-toluenesulfonate See Brevitium Kryptate Page 309	

B 4380 [C-25]	Bromobimane (71418-44-5) $C_{10}H_{11}N_2O_2Br$ FW 271 1	25 mg 58 60
	minimum 97% Fluorescent probe for thiol Ref: 1. Kosower, N.S. et al. <i>Proc. Natl. Acad. Sci. USA</i> 76, 3382 (1979) 2. Daneshmandi, P. and Noll, A. <i>Microchemistry</i> 86, 281 (1987)	
41,088-8 [C-25]	3-Bromo-3-buten-1-ol (76334-36-6) C_4H_7BrO FW 151 0	1 g 29 73
	minimum 98% (GC) R 36/37/38 S 26-36	10 g 162 97
14,787-7 [C-25]	2-Bromobutyric acid $C_4H_7BrO_2$ FW 167 0	100 mL 22 41
	Densim R 34 S 53-26-45-36/37/39	500 mL 52 29
	4-Bromo-calcimycin See 4-Bromo-calcium ionophore A23187 Page 214	
B 7272 [C-25]	4-Bromo-calcium ionophore A23187 4-Bromo-A23187, 4-Bromo-calcimycin FW 602 5	1 mg 106 50
	Analogy of calcium ionophore A23187 Powder Ca^{2+} ionophore that is used to potentiate responses to NMDA receptors, but not quisqualate receptors Analogy of calcium ionophore A23187 Color yellow Solubility DMSO soluble ethanol 20 mg/mL Ref: Wang, E. et al. Mechanism and specificity of lanthanide sensitized calcium transport by ionophore A23187, 4-BaA23187, and ionomycin. <i>Bioophys. J.</i> 75, 1244-1254 (1998) R 202/122-36/37/38 S 26-36/37/39	5 mg 418 30
24,165-2 [B]	1-Bromo-6-chlorohexane (6294-17-3) $Br(CH_2)_5Cl$ FW 199 5	5 g 37 35
	minimum 97% (GC) R 36/37/38 S 23-24/25	25 g 104 88
	5-Bromo-4-chloro-3-indolyl 2-acetamido-2-deoxy- β -D-galactopyranoside See 5-Bromo-4-chloro-3-indolyl N-acetyl- β -D-galactosamine Page 214	
	5-Bromo-4-chloro-3-indolyl 2-acetamido-2-deoxy- β -D-glucopyranoside See 5-Bromo-4-chloro-3-indolyl N-acetyl- β -D-glucosamine Page 214	
B 4377 [C-25]	5-Bromo-4-chloro-3-indolyl acetate (2552-36-6) $C_{10}H_6BrClNO_2$ FW 288 5	25 mg 18 80
	Sealed ampule Decomposes in storage with development of dark blue-green color A hydrochemical substrate for esterase Ref: Hult, S. J. and Withers, R. F. <i>Proc. Royal Soc. Lond. B</i> 148, 520 (1958)	500 mg 169 70
B 3166 [C-25]	5-Bromo-4-chloro-3-indolyl N-acetyl- β -D-galactosamine 5-Bromo-4-chloro-3-indolyl 2-acetamido-2-deoxy- β -D-galactopyranoside, X-GalNAc (129572-48-1) $C_{19}H_{18}BrClN_2O_6$ FW 449 7	5 mg 74 40
	approx. 95%	25 mg 247 00
		100 mg 684 60
B 3041 [C-25]	5-Bromo-4-chloro-3-indolyl N-acetyl- β -D-glucosamine X-GlcNAc, 5-Bromo-4-chloro-3-indolyl 2-acetamido-2-deoxy- β -D-glucopyranoside (4264-82-8) $C_{19}H_{18}BrClN_2O_6$ FW 449 7	25 mg 115 20
	minimum 98% Histochemical substrate for N-acetylglucosaminidase	100 mg 319 70

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Kontakt

Magenta-Gal

Art.-Nr.: A1143

Menge

Bestell-Nr.

25 mg

A1143,0025

100 mg

A1143,0100

Synonym:

Brom-6-chlor-3-indolyl- β -D-galactopyranosid

Formel:

 $C_{14}H_{15}BrClNO_6$

M:

408,63 g/mol

CAS-Nr.:

93863-88-8

HS-Nr.:

29400090

Lagerung:

-20°C lichtgeschützt

LGK:

10 - 13

Spezifikation:

Gehalt (HPLC):

min. 98 %

 α 20°C/D; 1 %, EtOH:-46° \pm 2°
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+ Mag- α -Gal (idem in α -D)

B 9276 **5-Bromo-4-chloro-3-indolyl octanoate** 5 mg 31.60
 [129541-42-0] $C_{16}H_{18}BrClNO_2$
 FW 372.7
 minimum 98%

5-Bromo-4-chloro-3-indolyl phosphate
 Histomical substrate for alkaline phosphatase.
 Ref: Horwitz, J.P., et al., *J. Med. Chem.* 9, 447 (1966)

B 6274 **5-Bromo-4-chloro-3-indolyl phosphate dipotassium salt** 25 mg 17.30
 1 g 273.20
 BCP
 [102185-33-1] $C_{16}H_{16}BrClNO_8P_2 \cdot 2Na$ FW 402.7
 R 3637/38 S 22-26-36

5-Bromo-4-chloro-3-indolyl phosphate disodium salt
 BCP, X-phosphate disodium salt
 [102185-33-1] $C_{16}H_{16}BrClNO_8P_2 \cdot 2Na$ FW 370.4
 For the colorimetric detection of alkaline phosphate-labeled molecules.

Solubility
 dimethylformamide insoluble
 water 20 mg/ml
 Ref: 1. Leary, J.J., et al., Rapid and sensitive colorimetric method for visualizing biotin-labeled DNA probes hybridized to DNA or RNA immobilized on nitrocellulose. *Bio-biotec Proc. Natl. Acad. Sci. USA* 80, 4045-4049 (1983)
 2. Meltzer, J.C., et al., Enhanced immunohistochemical detection of autonomic nerve fibers, cytokines and inducible nitric oxide synthase by light and fluorescent microscopy in rat spleen. *J. Histochem. Cytochem.* 45(4), 599-610 (1997)

B 6149 25 mg 14.20
 50 mg 23.50
 100 mg 38.80
 500 mg 137.10
 1 g 228.20
 5 g 902.90
 R 3637/38 S 26-36

B 1026 **≥98%, Powder, for molecular biology** 100 mg 56.71
 500 mg 199.25
 Protease none detected

5-Bromo-4-chloro-3-indolyl phosphate p-toluidine salt
 BCP; BCP-p-toluidine salt; X-phosphate p-toluidine salt
 [6578-06-9] $C_{16}H_{16}BrClNO_8P \cdot C_7H_9N$ FW 433.6
 For the colorimetric detection of alkaline phosphate-labeled molecules.

Ref: 1. Leary, J.J., et al., Rapid and sensitive colorimetric method for visualizing biotin-labeled DNA probes hybridized to DNA or RNA immobilized on nitrocellulose. *Bio-biotec Proc. Natl. Acad. Sci. USA* 80, 4045-4049 (1983)
 2. Meltzer, J.C., et al., Enhanced immunohistochemical detection of autonomic nerve fibers, cytokines and inducible nitric oxide synthase by light and fluorescent microscopy in rat spleen. *J. Histochem. Cytochem.* 45(4), 599-610 (1997)
 R 3637/38 S 26-36

B 8503 minimum 98% 25 mg 15.20
 Solubility 50 mg 25.10
 water 100 mg 41.60
 dimethylformamide 20 mg/ml 500 mg 158.70
 1 g 284.20
 5 g 1125.60

B 6777 **≥98%, Powder, for molecular biology** 100 mg 48.33
 500 mg 197.12
 Protease none detected
 Solubility
 water insoluble
 dimethylformamide 20 mg/ml

B 0274 BCP 10 tablets 181.90
 Tablet 25 tablets 363.60

5-Bromo-4-Chloro-3-indolyl Phosphate p-Toluidine Salt is the substrate of choice for use with alkaline phosphatase in immunoblotting and, less commonly, in immunohistological staining procedures. High assay sensitivity is achieved via amplification when BCP is used in conjunction with Nitro Blue Tetrazolium (NBT) Tablets (Sigma-Product No. N 5514). This substrate produces an insoluble end product that is blue-purple in color and can be observed visually.

Contains 25 mg substrate per tablet.
 Ref: 1. Horwitz, J.P., et al., *J. Med. Chem.* 9, 447 (1966)
 2. Blake, M.S., *Analyt. Biochem.* 136, 175 (1984)

B 5667 **5-Bromo-4-chloro-3-indolyl phosphate p-toluidine salt** 25 mg 33.30
 100 mg 112.20
 Magenta phosphate
 [6769-80-8] $C_{16}H_{16}BrClNO_8P \cdot C_7H_9N$ FW 433.6
 approx. 97% (HPLC)
 R 40 S 33-22-45-36/37

B 379 **5-Bromo-4-chloro-3-indolyl sulfate potassium salt** 5 mg 11.00
 25 mg 25.40
 100 mg 56.60
 FW 364.6
 A histomical substrate for aryl-sulfatase.

Ref: Horwitz, J.P., et al., *Lab. Invest.* 15, 132 (1966)

B 5630 **5-Bromo-4-chloroindoxyl 1,3-diacetate** 1 g 122.60
 5-Bromo-4-chloro-3-indolyl 1,3-diacetate
 [3030-06-6] $C_{17}H_{16}BrClNO_6$ FW 330.6
 S 22-24/25

B 9673 **1-Bromo-3-chloropropane** 200 ml 30.79
 Trimethylene bromochloride; BCP;
 1-(1,3-bis(2-oxido-5-ylcarboxy)propyl)pyridine
 [109-70-6] $ClC(H_2)_3Br$ FW 157.4
 suitable for RNA extractions using any of the TRI Reagents

BCP can be used in place of chloroform, and is less toxic; it does not adversely affect quality or quantity of the isolated RNA.
 Ref: Chomczynski, P. and Mackey, K., Substitution of chloroform by bromo-chloropropane in the single-step method of RNA isolation. *Analyt. Biochem.* 225, 163-164 (1995)
 R 10-20/22 S 16-23

2-Bromo-2-chloro-1,1,1-trifluoroethane
 Halothane
 [151-67-7] $BrCHClCF_3$ FW 197.4
 Inhalation anesthetic.

B 4388 minimum 99% 125 ml 65.40
 contains 0.01% thymol as stabilizer 250 ml 108.60
 Density 1.86 g/ml
 R 61-36 S 53-23-26-45-36/37

H-169 **Liquid, USP** 250 ml 105.04
 Light sensitive
 contains 0.01% (w/v) thymol

$\begin{matrix} \text{F} & \text{F} & \text{F} \\ | & | & | \\ \text{C} & - & \text{C} & - & \text{C} \\ | & | & | \\ \text{Br} & & \text{Cl} & & \text{Br} \end{matrix}$

R 40-41 S 36

30-Bromo-5-cholestene See: Cholesteryl bromide B 489
N-(2-[6-bromomethylamino]ethyl)-5-isoquinolinesulfonamide hydrochloride See: H-89 Page 987

Bromocresol blue See: Bromocresol Green Sulfone Form Page 317